**. - Hygiene and HACCP**

Prof. Marco Delledonne

***COURSE AIMS AND INTENDED LEARNING OUTCOMES***

The course aims to provide students with the basic concepts necessary for conducting risk analyses in primary production and along the entire food chain in accordance with the relevant EU and national legislation. The aim of the course is for students to acquire scientific knowledge of the main microbiological, chemical and physical hazards in human foodstuffs, and to learn the practical application of EU and national food legislation and how to apply this knowledge in the drafting of HACCP manuals according to the Codex Alimentarius criteria.

At the end of the course the student will be able to correctly perform a risk assessment and to propose appropriate risk management measures in the food business; they will also be able to draw up a HACCP manual, with particular regard to the prerequisite programmes, the identification of critical points of control (CCP), their monitoring and to the correct implementation of corrective actions.

***COURSE CONTENT***

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|  | ECTS |
| **European legislation on food safety and hygiene.** |  |
| Regulation (EC) 178/2002: applicability, definitions, responsibilities, traceability and retraceability of food, early warning system, European Food Safety Authority (EFSA); Regulation (EC) 852/2004 on food hygiene and Regulation (EC) 853/2004 on the hygiene of products of animal origin. | 1.0 |
| Regulation (EU) 2017/625: Competent Authorities, Control Bodies, registration methods and recognition of companies in the food sector. | 0.5 |
| **Microbiological, chemical and physical hazards in human foods.** |  |
| Identification and examination of the main risks of microbiological, parasitological, chemical and physical origin in food.  Regulation (EC) 2073/2005 and subsequent amendments on microbiological criteria applicable to food products. | 1.5 |
| **Recommended international code of general practices and principles of food hygiene (HACCP according to the Codex Alimentarius).** |  |
| Prerequisites, principles of HACCP and Guidelines. | 1.0 |
| **Food sampling criteria.** |  |
| European legislation, Law 283/1962 and Presidential Decree 327/1980 (official sampling). | 0.5 |
| **Food labelling and packaging.** |  |
| Regulation (EU) 1169/2011 and the sanction decree. | 0.5 |
| **Animal by-products.** |  |
| Regulation (EC) 1069/2009: the management of animal by-products. | 0.5 |
| **Crimes and administrative sanctions in the food sector.** |  |
| Identification of the main criminal violations and brief notes on the management of administrative sanctions in the food sector. | 0.5 |

***READING LIST***

M. Delledonne*, Manuale di analisi del rischio alimentare*, 2019, Ed. Amazon ISBN 9781093113297

M. Delledonne, *L’etichettatura dei prodotti alimentari*, 2019, Ed. Amazon ISBN 9781793223302

***TEACHING METHOD***

Theoretical frontal and dialogical lectures using PowerPoint presentations to present the theoretical concepts of the covered topics, alternated with practical tutorials and simulations of real cases. The slides are considered an integral part of the reference reading list and will be uploaded to the blackboard platform.

***ASSESSMENT METHOD AND CRITERIA***

The final exam will comprise both a written and oral component. The written test aims to ascertain the student's ability to solve simulated cases through two open-ended questions. The duration of the written test is 1 hour. The oral exam will focus on a topic chosen and studied by the student, and on two questions concerning the theoretical concepts covered in the lecture topics.

The written test and the oral exam are assessed on a scale from 0-30 and the final mark is the arithmetic mean of the two marks.

***NOTES AND PREREQUISITES***

The student must possess adequate basic knowledge of microbiology and chemistry.

In case the current Covid-19 health emergency does not allow frontal teaching, remote teaching will be carried out through synchronous or asynchronous procedures that will be promptly notified to students.

***OFFICE HOURS FOR STUDENTS***

Information on office hours available on the teacher's personal page at <http://docenti.unicatt.it/>.